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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,446	12/15/2003	Harry Schilling	5858-01800	3081

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EXAMINER

WANG, QUAN ZHEN

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,446

Applicant(s)

SCHILLING, HARRY

Examiner

Quan-Zhen Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/27/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the following informalities: all boxes should be labeled descriptively.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites the limitation of "...the controller signaling, by means of a desired value, a predetermined data rate or package size a predetermined data rate or package size selectively either to the data source or to the optical transmitter." However, the instant specification does not disclose or teach the corresponding structures or materials to enable one skilled in the art to make and/or use the invention.

Claim 2 recites the limitation of "...the controller being disposed between the data source and the optical transmitter and converting the data of the data source in accordance with a desired value to a predetermined data rate or to packages of predetermined package size." However, the instant specification does not disclose or teach how does the controller convert the data to a predetermined "data rate" or "package size".

Claim 3 recites the limitation of "... the controller comprises means for ... issuing stored data at different data rates to the transmitter". However, the instant specification does not clearly disclose any structure of the claimed "means for issuing stored data at different data rates".

Claim 4 recites the limitation of “desired value is set by a desired-value setting-means according to the actually prevailing transmission characteristics of the data path between the optical transmitter and the optical receiver, or according to another measured parameter”. However, the instant specification does not teach or disclose any “structure” which corresponds to the claimed means.

Claim 5 recites the limitation of “an evaluation means is provided between the optical receiver and the data sink”. However, the instant specification does not teach or disclose any “structure” which corresponds to the claimed means.

Claim 8 recited the limitation of “... forming a desired value of a data rate or data package size from the determined at least one parameter; setting a data rate or a size of data packages for transmission along the data path in accordance with the desired value; ...”. However, the instant specification does not disclose or teach how to form “desired value of a data rate or data package size from the determined at least one parameter”.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation of “...the controller signaling, by means of a desired value, a predetermined data rate or package size a predetermined data rate or package

size selectively either to the data source or to the optical transmitter.” However, it is not clear what the cited limitation means.

Claim 2 recites the limitation of “...the controller being disposed between the data source and the optical transmitter and converting the data of the data source in accordance with a desired value to a predetermined data rate or to packages of predetermined package size.” However, it is not clear what it means by “converting the data of the data source in accordance with a desired value to a predetermined data rate or to packages of predetermined package size”. It is not clear how can data be converted into packages of predetermined package size.

Claim 3 recites the limitation of “... the controller comprises means for ... issuing stored data at different data rates to the transmitter”. However, it is not clear what it means by “issuing stored data at different data rates”. It is not clear whether the controller controls the data storing means to write/read data at different rates (speeds) or controls the transmitter to transmit the data at different data rates.

Claim 8 recited the limitation of “... forming a desired value of a data rate or data package size from the determined at least one parameter; setting a data rate or a size of data packages for transmission along the data path in accordance with the desired value; ...”. However, what it means by “data package”.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Guempelein et al. (U.S. Patent US 5,535,033).

Regarding claims 1, 2, and 8, as they are understood in view of the above 112 problem, Guempelein discloses a device (fig. 1) for broadband transmission of digital optical signals between at least one first unit and at least one second unit (fig. 1, combination of elements 10, 11, and 12) traveling relative to the first unit (fig. 1, combination of elements 4, 5, and 6) along a given track (column 2, lines 17-53), the device comprising, in association with the first unit: a data source (fig. 1, data source 6) for generating a serial data stream; an optical transmitter (fig. 1, transmitter 4) for generating optical signals from the serial data stream of the data source; an optical waveguide (fig. 1, fiber 2) for guiding the optical signals generated by the optical transmitter; and also comprising, in association with the second unit: a coupling element (fig. 1, device couple signal to detector) for tapping optical signals from the optical waveguide; an optical receiver (fig. 1, detector 10) for receiving the signals tapped by the coupling element; a data sink (fig. 1, data receiver 12) for further processing the signals received by the optical receiver; wherein a controller (fig. 1, modulation unit 5) is provided for controlling the data stream, the controller being disposed between the data source and the optical transmitter and converting the data of the data source in accordance with a desired value to a predetermined data rate or to packages of predetermined package size (column 2, line 17 to column 3, line 23).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guempelein et al. (U.S. Patent US 5,535,033).

Regarding claim 4, as it is understood in view of the above 112 problem, Guempelein differs from the claimed invention in that Guempelein does not specifically disclose that the desired value is set by a desired-value setting-means according to the actually prevailing transmission characteristics of the data path between the optical transmitter and the optical receiver. However, Guempelein further teaches that the system is to provide a contactless data transmission device which permits data to be transmitted between system components which are movable relative to each other, in a manner which achieves a continuous data connection, and which is constructed in a simple way and which is immune from interference. Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to configure the system of Guempelein by a desired-value setting-means according to the actually prevailing transmission characteristics of the data path between the optical transmitter and the optical receiver in order to ensure a continuous data connection.

Regarding claim 6, Guempelein differs from the claimed invention in that Guempelein does not specifically disclose that a microcontroller is provided for control and diagnosis of the device. However, Guempelein further teaches that the system is to provide a contactless data transmission device which permits data to be transmitted between system components which are movable relative to each other, in a manner which achieves a continuous data connection, and which is constructed in a simple way and which is immune from interference. Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to incorporate a microcontroller is provided for control and diagnosis of the device in the system of Guempelein in order to ensure a continuous data connection.

Regarding claim 7, Guempelein differs from the claimed invention in that Guempelein does not specifically disclose that the device is self-learning and during operation dynamically adapts to currently prevailing operating conditions. However, Guempelein further teaches that the system is to provide a contactless data transmission device which permits data to be transmitted between system components which are movable relative to each other, in a manner which achieves a continuous data connection, and which is constructed in a simple way and which is immune from interference. Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to configure the device of Guempelein to be self-learning and during operation dynamically adapts to currently prevailing operating conditions in order to ensure a continuous data connection and immune from interference.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guempelein et al. (U.S. Patent US 5,535,033) in view of Moss et al. (U.S. Patent US 5,477,366).

Regarding claim 3, as it is understood in view of the above 112 problem, Guempelein differs from the claimed invention in that Guempelein does not specifically disclose that the controller comprises means for storing data and issuing stored data at different data rates for the transmitter. However, Examiner takes Official Notice that it is well known in the art to configure a controller to comprises means for storing data. In addition, it is well known in the art to transmit data at different rates. For example, Moss discloses an optical transmission system can transmit data at different rate (column 1, lines 19-31). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to incorporate a means for storing data and issuing data at different data rates for the transmitter, as it is disclosed by Moss, in the system of Guempelein in order to ensure a continuous data connection and immune from interference.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guempelein et al. (U.S. Patent US 5,535,033) in view of Landis (U.S. Patent US 5,659,368).

Regarding claim 5, as it is understood in view of the above 112 problem, Guempelein differs from the claimed invention in that Guempelein does not specifically

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disclose that an evaluation means is provided between the optical receiver and the data sink; the evaluation means has additional means for signaling incorrectly transmitted data to the controller by means of an auxiliary transmission channel; and the controller is adapted to repeat a transmission of incorrectly received data packages upon request by the evaluation means. However, it is well known in the art to use an evaluation means check the reception of the data and request a retransmission of incorrectly received data packages. For example, Landis discloses to use an evaluation means check the reception of the data and request a retransmission of incorrectly received data packages (column 4, lines 55-63). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to incorporate an evaluation means check the reception of the data and request a retransmission of incorrectly received data packages, as it is disclosed by Landis, in the system of Guempelein in order to ensure a continuous data connection and immune from interference.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Glen et al. (U.S. Patent US 6,208,784 B1) discloses a fiber optical multiple access system wherein the information can be accessed using a slidably mounted optical tap at different position of the hollow waveguide. Harrison et al. (U.S. Patent US 6,396,613 B1) disclose an optical high speed communications for a computed tomography X-ray machine to reliably transmit high data rate data. Lohr et al.

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(U.S. Patent US 6,650,843 B1) disclose a device for providing optical signal transmission between a transmitter unit and a receiving unit which is mobile relative to the transmitter unit.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan-Zhen Wang whose telephone number is (571) 272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

qzw
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